

Chemical Reactions

Topic: Chemical Reactions

Level: 8th grade Integrated Science

Arizona Science Standards Addressed: S1C2PO5 Keep a record of observations, notes, sketches, questions and ideas. S1C3PO1 Analysis and Conclusions - Analyze and interpret data to explain results. . S1C3PO5. Explain how evidence supports the validity of a conclusion. S1C4PO5 Communicate the results and conclusions of the investigation. S5C1 Properties and Changes of Properties in Matter

Students gain an understanding of the nature of matter and energy, including their forms, the changes they undergo, and their interactions. Strand 5 Concept 1 Understand physical and chemical properties of matter.

S5C1 PO2: Identify different kinds of matter based on the following chemical properties: reactivity

S5C1 PO4 Classify matter in terms of elements, compounds, or mixtures. PO3 Identify the following types of evidence that a chemical reaction has occurred: formation of a precipitate, generation of a gas, color change, absorption or release of heat.

TOPIC: Chemical Reactions

LEVEL OF LEARNING: Observe and record evidence of chemical reactions that form new substances, change color, give off gas, change temperature, give off light. Experiment to determine the best ratio of luminol solution to peroxide solution to cause the longest glow. Plan and do a new experiment to make a chemical reaction that gives off heat. Include a data table, graph, and conclusion. Discuss and sort examples of physical changes and chemical changes. Summarize chemical reactivity - what happens when substances react?

VOCABULARY: matter, energy, chemical property, reactivity, chemical reaction, compounds, new substance is formed, exothermic - release heat, endothermic - absorb heat, calcium chloride, ratio

ASSESSMENT- Participation cards, Lab Notebook rubric - data table, graph, conclusion